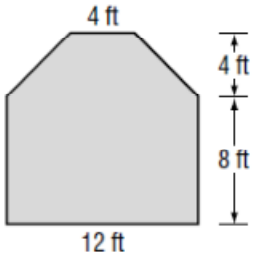
NAME _____ DATE _____ PERIOD _____

11-6 Study Guide and Intervention

Area of Composite Figures

Composite figures are made of triangles, quadrilaterals, semicircles, and other two-dimensional figures. To find the area of a composite figure, separate it into figures whose areas you know how to find, and then add the areas.

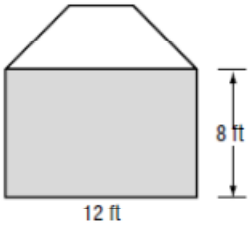
Example 1 **Find the area of the figure at the right in square feet.**



The figure can be separated into a rectangle and a trapezoid. Find the area of each.

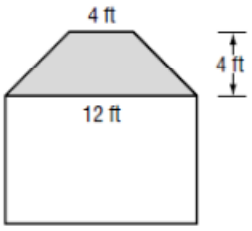
Area of Rectangle

$A = \ell w$	Area of a rectangle
$A = 12 \cdot 8$	Replace ℓ with 12 and w with 8.
$A = 96$	Multiply.



Area of Trapezoid

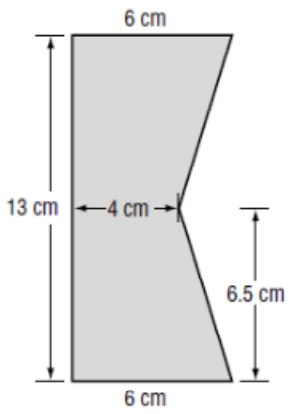
$A = \frac{1}{2}h(b_1 + b_2)$	Area of a trapezoid
$A = \frac{1}{2}(4)(4 + 12)$	Replace h with 4, b_1 with 4, and b_2 with 12.
$A = 32$	Multiply.



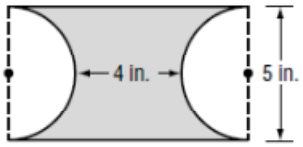
The area of the figure is 96 + 32 or 128 square feet.

Exercises

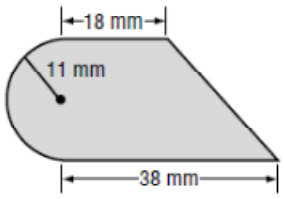
Find the area of each figure. Use 3.14 for π. Round to the nearest tenth if necessary.

1. 

65 cm²

2. 

25.4 in²

3. 

806.0 mm²